City of
Fitchburg

Department of
Public Works

COMMISSIONER
301 Broad Street
978-829-1910
978-345-9687 FAX

STREETS & PARKS
301 Broad Street
978-829-1900
978-345-9687 FAX

WASTEWATER
166 Boulder Drive, Suite 108
978-345-9622
978-345-9623 FAX

SEWER COLLECTION
301 Broad Street
978-829-1905
978-345-9687 FAX

WATER
1200 Rindge Road
978-345-9616
978-345-9555 FAX

ENGINEERING
PLANNING
301 Broad Street
978-829-1917
978-345-9687 FAX

CEMETERIES
115 Mount Elam Road
978-345-9578
978-345-9686 FAX

Dye Testing – For the Fitchburg DPW Wastewater Division's Sewer System Study

Dye testing of sewers is scheduled to begin on Wednesday – July 20, 2016.

The Consent Decree work Fitchburg DPW Wastewater Division has been undertaking includes investigations of the sewer system to identify sources on non-sewerage water that enter into the sewer system. This water is from rainwater (called "inflow") and from subsurface groundwater (called "infiltration").

This extraneous water is a problem to the sewers because it contributes to a loss of flowing capacity of the sewers, overloading of the treatment plant due to extreme high flows, sewer system surcharges and risk of sewer overflows to the environment, and potential sewer system impacts to sewer customers by sewer backups into customers' properties.

During smoke testing of sewers and manhole inspections, defects are often noted that could potentially allow infiltration and inflow into the sewer collection system.

Dye testing is a traditional technique and a proven method used for different purposes in sewer system investigations. Dyed water flooding/testing is a way to verify the presence and the magnitude of leaks into the sewer system. The method uses environmentally safe, brightly-colored dye, which is forced into specific defects that were located during the sewers smoke testing and manholes inspections.

Through observation and the use of closed circuit television (CCTV) camera work, the path of the dyed water is then documented, and the defects in the sewer system are located. Main line defects, cross-connections, roof drain connections, manholes exhibiting infiltration and inflow, and area drains connections to the sewers can all be investigated, identified and confirmed using dyed water flooding test procedures.

Identification of defects in the sewer system will allow us to more cost-effectively rehabilitate the sewer system, and to help prevent negative service impacts to our customers, and risks and impacts to the environment that result from excessive non-sewerage water entering into the sewer system.

Jeffrey A. Murawski, P.E., DPW Deputy Commissioner of Wastewater
Fitchburg DPW Wastewater Division